Amendment Under 37 C.F.R. § 1.111 & Response to Election of Species Requirement

Atty. Docket: Q76955 US Appln. 10/643,905

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A sensor for a bearing, comprising:

a sensor being incorporated into the bearing or its surroundings, wherein

[[a]] the sensor includes voltage means operable is configured to decrease an output voltage of the sensor in conjunction with an increase of measured temperature by

the measured sensor.

2. (Original) The sensor according to claim 1, wherein

one or more fixed resistors is connected to the sensor.

3. (Currently Amended) The sensor according to claim 2, wherein the sensor is

constructed by a thermistor, and wherein the one or more fixed resistors are resistor is connected

in parallel with the sensor thermistor.

4. (Original) The sensor according to claim 3, wherein the thermistor is constructed by a

NTC thermistor having a negative temperature characteristic.

5. (Currently Amended) The sensor according to claim 3, wherein the thermistor is

constructed by one of a PTC thermistor and a silicon thermistor, and wherein the one of the PTC

thermistor and the silicon thermistor have has a positive temperature characteristic.

6. (Original) A bearing apparatus, comprising:

a sensor according to claim 1.

7. (Original) The bearing apparatus according to claim 6, further comprising:

a temperature detection circuit; and

a cable for connecting the sensor and the temperature detection circuit.

2

Atty. Docket: Q76955 US Appln. 10/643,905

- 8. (Original) The bearing apparatus according to claim 7, wherein the temperature detection circuit has a resistor for converting an output of the sensor into a voltage.
 - 9. (Original) An abnormality determining apparatus for an axle bearing, comprising: a bearing apparatus according to claim 6.
 - 10. (Original) The bearing apparatus according to claim 6, further comprising:a rotation speed sensor; anda vibration sensor.
 - 11. (Original) A bearing apparatus, comprising a sensor according to claim 2.
 - 12. (Original) The bearing apparatus according to claim 11, further comprising: a temperature detection circuit; and a cable for connecting the sensor and the temperature detection circuit.
 - 13. (Original) The bearing apparatus according to claim 12, wherein the temperature detection circuit has a resistor for converting an output of the sensor into a voltage.
 - 14. (Original) An abnormality determining apparatus for an axle bearing, comprising: a bearing apparatus according to claim 11.
 - 15. (Original) The bearing apparatus according to claim 11, further comprising:a rotation speed sensor; anda vibration sensor.

Atty. Docket: Q76955 US Appln. 10/643,905

- 16. (Original) A bearing apparatus, comprising:a sensor according to claim 3.
- 17. (Original) The bearing apparatus according to claim 16, further comprising: a temperature detection circuit; and a cable for connecting the sensor and the temperature detection circuit.
- 18. (Original) The bearing apparatus according to claim 17, wherein the temperature detection circuit has a resistor for converting an output of the sensor into a voltage.
- 19. (Original) An abnormality determining apparatus for an axle bearing, comprising: a bearing apparatus with the sensor according to claim 16.
- 20. (Original) The bearing apparatus according to claim 16, further comprising: a rotation speed sensor; and a vibration sensor.